

A map of Washington state serves as the background. Overlaid on the map are three grayscale images: the top image shows the 'SEATTLE DISTRIBUTION CENTER' with several semi-trailers parked in front; the middle image shows a large gantry crane at a port; the bottom image shows a BNSF freight train with 'HANJIN' shipping containers.

Freight Mobility Strategic Action Plan

April 2004



Seattle Department of Transportation

Gregory J. Nickels, Mayor

Grace Crunican, Director

April 28, 2004

I am pleased to present the City of Seattle's first annual update to the Freight Mobility Strategic Action Plan. The City's first Freight Mobility Strategic Action Plan was published in November 2002 as part of an initiative of Mayor Nickel's first 100 days in office to develop a plan to protect and improve major freight routes in Seattle. This update of that plan demonstrates Seattle Department of Transportation's commitment to advancing the priority of freight mobility.

This plan serves as a guide for the Seattle Department of Transportation's (SDOT's) freight mobility activities, with both near and long-range goals and action items. This tool helps provide both private and public stakeholders with a means for future accountability because it guides our efforts to maintain and improve our transportation infrastructure.

The plan is divided into five key areas: *Truck Access, Rail Access, Freight Access to Manufacturing and Industrial Areas, Port of Seattle Container & Cargo Terminals, and Retail Goods Delivery*. Within each subject area, specific actions and assigned completion dates have been identified. Appendix 1 lists accomplishments and activities since the first Freight Mobility Strategic Action Plan was published. Appendix 2 presents the results of a survey of the freight community's opinions of the relative priority of the proposed SDOT actions. Appendix 3 includes the City's Comprehensive Plan goals related to freight mobility and the City's Transportation Strategic Plan strategies for moving goods and freight. These adopted policies and strategies provide the policy foundation for this action plan. These plans will be revised during the remainder of this year and 2005. I encourage the freight community to participate in the plan revision process.

Freight Mobility is an important component of SDOT's family of services to maintain and enhance economic activity in Seattle and the State of Washington. The bottom line is that improvement in freight mobility is critical to our economic competitiveness to maintain jobs, our position as a premier Pacific Rim port of trade, and as a regional center for goods and services.

SDOT will continue to work with the freight and industrial communities to improve our existing transportation system and maintain a balance that moves goods, freight and people as safely and efficiently as possible. For further information on the Action Plan and the City's freight mobility program, please contact Ron Borowski, at (206) 684-8370 and by email at ron.borowski@seattle.gov or Ann Sutphin at (206) 684-8374 and by email at ann.sutphin@seattle.gov.

Sincerely,

GRACE CRUNICAN, Director
Seattle Department of Transportation



Key Tower, 700 5th Avenue, Suite 3900, PO Box 34996, Seattle, WA 98124-4996
Tel: (206) 684-ROAD (684-7623), TTY/TDD (206) 684-4009, FAX: (206) 684-5180
Internet address: <http://www.seattle.gov/transportation>

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SEATTLE FREIGHT MOBILITY STRATEGIC ACTION PLAN 2004 UPDATE

EXECUTIVE SUMMARY

Introduction — Freight mobility is an important component of SDOT's family of services to maintain and enhance economic activity in Seattle and the State of Washington. Freight mobility issues are particularly important for Seattle's two designated manufacturing and industrial centers — the Greater Duwamish Manufacturing and Industrial Center and the Ballard/Interbay/North Manufacturing and Industrial Center (BINMIC). The manufacturing and maritime sectors provide more than 121,700 accessible, family-wage jobs which comprise 24.2% of all jobs in Seattle. Direct and reliable transportation connections to water, rail, airport and truck facilities are crucial to ensuring the region's economic growth and well being.

Background — In order to guide the Seattle Department of Transportation (SDOT) efforts to improve freight mobility, SDOT prepared the City's first *Freight Mobility Strategic Action Plan* in November 2002. The Plan's actions addressed the anticipated administrative and functional actions to be carried out by the respective SDOT divisions to benefit freight pursuant to adopted City policy. In recognition of the importance of freight mobility, SDOT established a Freight Mobility Coordinator position to serve as the department point-of-contact with the freight community and to better integrate freight within ongoing plans, programs, projects and operating practices.

Freight Action Plan 2004 Update — SDOT has prepared this first annual update to the *Action Plan* to reflect changes in the City's freight program; funding opportunities; new actions to be done in 2004 in coordination with the freight community; and to report on implementation completed in 2003. The Plan is divided into five key areas: *Truck Access*, *Rail Access*, *Freight Access to Manufacturing and Industrial Areas*, *Port of Seattle Container & Cargo Terminals*, and *Retail Goods Delivery*. Within each subject area, specific actions and assigned completion dates have been identified. Appendix 1 lists 2003 accomplishments and activities. Appendix 2 presents the results of a survey of the freight community's opinions of the relative priority of the proposed SDOT actions. Appendix 3 includes the City's *Comprehensive Plan* freight mobility goals and the associated City *Transportation Strategic Plan* strategies.

Overview of Planned Actions in the 2004 Plan Update — The actions include updating SDOT street design practices, a long-term program of railroad grade separations, truck guide signing, and street improvements for the benefit of truck, rail and other modes. Examples of actions are: 1) pursue funding for and implement priority truck access projects including the Spokane St. Viaduct, Lander St. Grade Separation, Truck Spot Improvements, E. Marginal and Spokane Grade Separation, Leary Way, SR 519 Surface Street Project, and Duwamish Intelligent Transportation Systems (ITS); 2) incorporate freight operations design needs into the update of the *Right-of-Way Improvement (ROW) Manual*, for example, larger design vehicles where appropriate; and 3) complete the BNSF Railroad Third Mainline Track and Signal Improvements in coordination with Sound Transit.

Freight Community Partnership — In October 2002, the Seattle Freight Mobility Advisory Committee, co-sponsored by SDOT and the Seattle Manufacturing Industrial Council (MIC), was formed to provide a regular forum for communication with City staff and other agencies. This Committee was established to provide a forum for giving input on projects and programs of interest to the freight community and to exchange information. SDOT looks to the citywide freight committee to represent the interest of various freight transportation providers and operators (including the modes of truck, rail and marine transport), and to reflect the interests of constituents both in the north and south industrial areas of the City. The Committee meets on a monthly basis at the MIC offices located in Georgetown to encourage freight community attendance and participation.

Contacts — For further information on the *Action Plan* and the City's freight mobility program, please contact Ron Borowski, Freight Mobility Coordinator, at (206) 684-8370 and by email at: ron.borowski@seattle.gov, or Ann Sutphin, Senior Transportation Planner, at (206) 684-8374 and by email at ann.sutphin@seattle.gov.

Putting Local Freight Mobility into a Global Context

The Puget Sound Regional Council reports that together the Central Puget Sound's Seattle and Tacoma ports form one of the top three containerized cargo load centers in the Western Hemisphere. Our region is a major North American gateway for trade with Pacific Rim countries and trade to Alaska. Washington State is the fifth largest exporter in the US, and Japan, Canada, and China are our largest trading partners by value. Exports generate revenue for the US and state economy. Seventy percent of imports through the Puget Sound region's ports head inland to US destinations serving the domestic market. One in four jobs in the state is related to international trade. The ongoing shift to just-in-time delivery has created an even greater emphasis on reliable transportation systems, to the extent that the transportation system is used as a mobile warehouse for goods and equipment. Local freight mobility is an important component of the international trade system.

Freight Mobility in the Puget Sound Region

Seattle is also home to multiple marine-related businesses, including the Pacific Northwest's premier fishing fleet. Safe and efficient movement of freight and goods is critical to Seattle's economic stability and development, and to every sector of the state's economy. However, our region is not just a pass-through stop—65 percent of truck trips originating in this region are destined to stay in western Washington.

Freight mobility issues are particularly important for Seattle's two designated manufacturing and industrial centers—the Greater Duwamish Manufacturing and Industrial Center and the Ballard/Interbay Northend Manufacturing and Industrial Center (BINMIC). These two centers are expected to accommodate at least 10 percent of Seattle's new employment over the next 20 years—nearly 15,000 new jobs. The manufacturing and maritime sectors already provide more than 121,700 accessible, family-wage jobs, and 24.2% of all jobs in Seattle. Direct and reliable connections to water, rail, airport and truck facilities are crucial to ensuring our region's economic growth and well being.

The City of Seattle's Role in Freight Mobility

The Seattle Department of Transportation (SDOT) has the overall responsibility for coordinating freight mobility policy development and implementation in Seattle. SDOT operates and maintains Seattle's street system, designates truck routes, and constructs transportation projects. Our goal is reduce travel time and improve the reliability of travel for the movement of goods and services. The City's *Comprehensive Plan* and *Transportation Strategic Plan* contain policy guidance on freight mobility (see Appendix 3 for the adopted policies). Note that the City is in the process of revising the *Comprehensive Plan* and the *Transportation Strategic Plan* in 2004 and 2005.

The freight community is encouraged to participate in the plan revision process. Better integration of these responsibilities within SDOT will help provide a more coordinated response to the freight community's needs.

In order to better guide the Department's efforts to improve freight mobility, SDOT prepared the City's first Freight Mobility Strategic Action Plan in November 2002. Now updated annually, the Plan presents a list of actions to be carried out by the various SDOT divisions and other partners to benefit freight. In recognition of the importance of freight

mobility, SDOT established a Freight Mobility Coordinator function to better integrate freight improvement practices within ongoing SDOT plans, programs, projects and operating practices. This staff position serves as the department point-of-contact with the freight community. SDOT works closely with the freight community to exchange information and obtain input on needs and suggestions. In October 2002, the Seattle Freight Mobility Advisory Committee, co-sponsored by SDOT and the Seattle Manufacturing Industrial Council, was formed to provide a regular forum for communication with City staff and other agencies on freight issues.

The state and interstate highway system provide critical connections between the City of Seattle and other freight destinations. Seattle works with other transportation providers and regional interests to advocate for the inclusion of freight mobility considerations in the design and operation of these facilities and the enhanced movement of freight and goods throughout our regional transportation system.



Mayor Greg Nickels and Transportation Director Grace Crunican present an example of new directional signage.

The Challenges of Funding and Regional Partnerships

Long-term freight mobility solutions such as railroad grade separations at track and street crossings are expensive and often involve complex funding partnerships with public and private parties such as the Federal government, State, Port of Seattle, King County, and Burlington Northern Santa Fe, and Union Pacific Railroads. These challenges are currently exacerbated by struggling national and regional economies. In an environment of significant local, regional, and state budget reductions, finding funding for projects that would provide the greatest relief is a challenge. Unfortunately, that challenge is increasing.

Important forums for creating these funding partnerships for freight include the FAST Corridor program, the state's Freight Mobility Strategic Investment Board, and the Regional Freight Mobility Roundtable. The FAST Program (Freight Action Strategy for Everett-Seattle-Tacoma) Corridor Partnership is a nationally recognized leader in delivering transportation improvements for freight mobility. Since 1996, the FAST Partnership has studied freight movement via rails, roads and shipping ports to develop projects that move freight more efficiently and increase safety for cars, trucks and trains. FAST identified 15 top priority projects from Everett to Tacoma for Phase I: seven projects are complete. More FAST Phase I and II projects are in the pipeline for 2004 and 2005.

The Freight Mobility Strategic Investment Board (FMSIB) was created in 1998 when the State Legislature created RCW Chapter 47.06A, Freight Mobility and the Board for the purpose of reviewing, prioritizing, and recommending freight mobility transportation projects that are of strategic importance to the State of Washington. Their recommendations are presented to the Governor and the Legislature to provide a basis for project prioritization and funding allocations. SDOT will continue to work with FMSIB, and the Washington State Department of Transportation through the update to the State Transportation Plan, and will work with other local partners to articulate Seattle's freight mobility priorities.

The Regional Freight Mobility Roundtable is a public-private forum sponsored by the Puget Sound Regional Council to define and recommend actions serving freight mobility needs in and through central Puget Sound. Private sector participants include rail, marine, air cargo and trucking carriers, and shippers such as Boeing and Weyerhaeuser. Public sector participants include local governments, the ports of Seattle, Tacoma and Everett, state agencies, and federal agencies within the U.S. Department of Transportation (including rail, highway, maritime), and the Department of Defense. The Roundtable is consulted by the FAST Corridor Partnership and provides input into regional and state transportation plans.

SDOT regularly participates in these forums to elevate support and advocate timely funding for Seattle area freight mobility needs. State and federal funding processes assign greater priority to project applications which offer private funding participation. SDOT encourages private funding partnerships where projects benefit the freight community.

Despite funding uncertainty, SDOT has been able to identify a number of actions that can be accomplished either within existing resources or at a relatively low cost. It is important that SDOT lose neither the vision of Seattle's long-term infrastructure needs nor the urgency to make near-term progress on efforts to more efficiently move freight and goods through our transportation system. Seattle welcomes the freight community's support with creating private/public-funding partnerships, and communicating the needs and economic importance of freight transport to potential transportation funding entities.

TRUCK ACCESS

All of Seattle's businesses and residents rely on freight shipped via trucks in one way or another. While light trucks will continue to play an important role, the freight industry is generally moving towards the use of larger trucks to haul materials to and from construction sites, they support manufacturing and industrial businesses, to connect ships and railroads, and to make regional, interstate, and international trips. Moving these larger trucks on city streets can be a challenge.

While all arterial streets within Seattle are considered truck streets, the *Seattle Comprehensive Plan* has designated a network of major truck streets (*see map on page 6*) intended to serve as primary routes throughout the City. A major truck street is a street designation in the *Seattle Comprehensive Plan* street classification system for an arterial street that accommodates significant freight movement through the City, and to and from major freight traffic generators. Many of these streets are also designated principal arterials in the Seattle street classification system. Major Truck Streets generally carry heavier loads and higher truck volumes. SDOT uses the designation of major truck street as an important criterion for street design, traffic management decisions, and pavement design and repair.

The City's major truck streets are made up of existing arterials; very few of these streets were designed or constructed to accommodate trucks of the size and weight that are commonly in use today. As arterials are reconstructed, changes are made to accommodate larger vehicles, but many problem locations will not be reconstructed for many years. Similarly, conflicts between trucks and other transportation modes (trains, cars, buses, pedestrians, and bicyclists) can create safety concerns and cause expensive delays. Minimizing such conflicts makes all trips safer and more efficient as well as supports economic development.

Review Site-Specific Obstacles to Truck Movements on Major Truck Streets

SDOT would like to institutionalize an annual truck spot improvement program to address restrictive conditions that may exist on major freight corridors to enhance the ability of trucks to operate on the existing streets. At the current time, a dedicated funding resource has not been allocated to this program. Improvements that support truck movement include increasing curb radii on critical corners, removing on-street parking in key locations, relocating utility poles that are too close to the curb, installing signage (street name designation and truck directional signage), providing truck queue lanes/holding lanes at major terminal access points, and revising intersection signal control to as-

sist truck turning movements that now typically require a long wait for an adequate traffic gap.

ACTION 1 - Maintain an Updated Inventory of Known Obstacles Identified by the Trucking Community

SDOT will work with the Manufacturing and Industrial Council (MIC), the Ballard/Interbay/North Manufacturing Industrial Council (BINMIC), and other trucking and shipping groups to identify location-specific problem areas and potential solutions. An updated inventory will be completed by July 2004. This inventory will be used for further prioritization as funding become available or to identify site-specific opportunities that can be considered in design of already funded projects.



Utility poles placed too close to corners and tight turning radii along major truck streets can create obstacles to truck movement.

ACTION 2 - Maintain an Inventory of infrastructure height restrictions facing trucks operating in the City

SDOT will develop a list of bridges and other structures that present operating restrictions (height limitations) for trucks by May 2004. This list will be made available through the Internet to the trucking community to assist with route planning in 2004.

ACTION 3 - Maintain a list of truck weight restrictions on Seattle Bridges and other structures

SDOT will develop a list of bridges and other structures on the City street system that are posted with weight and other operating restrictions by June 2004. For example, this list will include the current weight restrictions posted on the Alaskan Way Viaduct. This list will be made available through the Internet to the trucking community to assist with route planning in 2004.

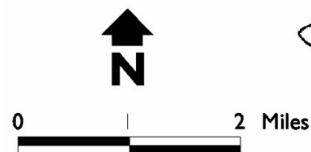
Major Truck Streets

Figure 6

Truck Streets

Truck Streets are a Transportation Element of the Comprehensive Plan.

The map shows the city of Everett, Washington, with its major highways and local streets. The city is bounded by Elliott Bay to the north and Lake Washington to the east. The map includes a scale bar indicating 2 miles. The map is oriented with North at the top. The city is divided into several districts, including the downtown area, the waterfront, and the surrounding areas. The map shows the locations of major highways, including I-5 and SR-20, and various local streets. The map also shows the locations of major landmarks, such as Green Lake and Lake Union. The map is a detailed representation of the city's street network, highlighting the locations of truck streets.



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ACTION 4 - Pursue Funding for Priority Truck Access Projects

SDOT will continue to seek funding for freight mobility projects. SDOT applied for a State FAST Corridor Partnership grant for funding to implement a multi-year truck mobility spot improvement program that would address the identified spot improvements over a six-year period. Although not approved, the FAST Partnership will consider federal funds for this project in the future. SDOT applied for a similar grant from the State Freight Mobility Strategic Investment Board in September 2002. Although the Board approved this application, and assigned a priority ranking to this \$7.1 million project, State funds have not yet been allocated to this project. The Legislature will be asked to approve funding for this project in future years. SDOT will continue to pursue this effort in a future grant cycle to install improvements that could include additional directional truck signing, U-turn restrictions, medians, and left turn signal revisions in the industrial centers. SDOT will request legislative consideration of the State freight funding for this program in the 2005 session.

Update Design Standards to Accommodate Trucks and Oversized Vehicles

As is characteristic of the historic development of Seattle, many City streets were not designed to current standards. Aging infrastructure has also taken its toll on street conditions. Implementing street changes for freight will be an incremental process of improving the physical environment as opportunities and funding permit. Trucking operators have expressed concern that the City's existing street design standards are not adequate for the larger and heavier trucks that are prevalent today. SDOT will continue to review current standards and modify them to ensure that when arterials—especially major truck streets—are redesigned and rebuilt, they are better able to accommodate truck movements, in coordination with other street use needs. Four prime examples are: 1) the Alaskan Way Viaduct and the Alaskan Way surface street; 2) several approach roads to the Port of Seattle container terminals; 3) the Elliott/15th Ave W corridor; and 4) the Mercer/Fairview Corridor serving the Ballard and North Interbay areas.

However, there will continue to be many locations on the Seattle street system where larger trucks will not be able to travel. Where space is extremely constrained, other options will need to be considered. For example, in Neighborhood Commercial Districts with limited street space, consideration will be given to encourage smaller truck usage to allow local access to constrained curbside loading areas.

In addition to identifying major truck streets, SDOT has a program to accommodate the movement of overlegal vehicles within and through the City. Overlegal vehicles are

those that are over length, over width, over height or over weight. Examples are the shipment of Boeing airplane tail assemblies, large cranes, and houses. On a regular basis, the SDOT commercial vehicle enforcement officers issue permits to identify and specify appropriate routes and to assist individual trips with accomplishing their journey. The standards for overlegal vehicles are being revised as part of the *Right-of-Way (ROW) Improvement Manual* update.

ACTION 5- Incorporate Freight Operational Design Needs For Major Truck Streets and Non-Major Truck Streets into the Update of the *Right-of-Way Improvement Manual*

SDOT has begun the process of updating the *Right-of-Way Improvement Manual*. The new manual is scheduled for publication in September 2005. Over the course of the next 18 months, staff will continue to work with freight stakeholders to obtain input on technical design standards and other supporting material for incorporation in the final document. SDOT will review the standards status with the Freight Committee in October 2004 and March 2005.

ACTION 6 – Include an Oversized Vehicle Design Standard in the Update of the *Right-of-Way Improvement Manual*

SDOT will work to identify a design standard within the *Street Improvement Manual* to accommodate oversize vehicles. This new standard will supplant the design criteria currently applied to street decisions, if appropriate. For example, it may suggest something akin to the typical 20' high x 20' wide envelope to be provided on all City major truck streets, as funding and site specific conditions permit. SDOT will review the standards status with the Freight Committee in October 2004 and March 2005. The update is scheduled to be completed by September, 2005.

Improve Pavement Conditions on Truck Access Routes

Roadway surface conditions are also an important factor for truck mobility and access. Truck access routes tend to deteriorate more quickly than other streets because they carry heavier loads and higher volumes. Major truck street status, as identified in the *Seattle Comprehensive Plan*, should be one of the criteria for determining paving priorities.

Some of Seattle's most important local industrial streets were never formally designed or constructed to city standards. Streets that were never designed for heavy industrial traffic are providing important lifelines for freight and commerce. Seattle Department of Transportation makes spot repairs to these streets as necessary to keep commerce moving, but it never has had the funds to recon-

struct, improve, or even to perform preventive maintenance on its local industrial streets. The problem of local industrial street maintenance is especially severe in the industrial areas of SODO, Georgetown and South Park, where the number and weight of industrial vehicles greatly exceeds the capacity of the local industrial streets.

To help address this need, SDOT has, since 2000, set aside a portion of its maintenance funds as a match for small, local paving projects that are suggested and supported by local businesses and property owners. In several instances, the local businesses have coordinated their efforts through a non-governmental, community-based organization, which has applied for additional city matching funds from the Department of Neighborhoods. The addition of the Department of Neighborhoods to the partnerships has increased the amount of public money available for the projects, and correspondingly reduced the sum that the businesses have had to contribute. SDOT strongly encourages freight business participation in the Paving Partnership Program.

ACTION 7 – Review 2005 Paving Priorities with the Freight Community

SDOT will review 2005 preliminary paving priorities with the Freight Committee to identify other needs and priorities. This review will be completed by September 2004

ACTION 8 - Pavement Management Program will continue to include Freight Needs as a Criteria in Prioritizing Street Rehabilitation Work

SDOT uses the condition of critical routes, the designated major truck streets, and public input on an on-going basis as important criteria, in coordination with other decision criteria, for determining priorities for street rehabilitation and reconstruction.

Based on these considerations, the candidate list of Manufacturing Industrial Center projects in the 2004 paving season are:

- ☐ 26th Avenue NW at NW 54th Street in the BINMIC area
- ☐ Leary Way between 15th Avenue NW and 36th Street
- ☐ Corson Avenue S. between S. Michigan Street and S. Orcas Street in the Duwamish area
- ☐ 16th Avenue between E Marginal Way S and the Duwamish River.

ACTION 9 – SDOT will solicit freight community involvement in the Paving Partnership Program.

SDOT will review paving partnership opportunities and solicit participation with the freight community in July 2004.



A SDOT crew completes a paving partnership project in the Duwamish industrial area.

Grade-Separate Key Truck Streets at Heavily Used Railroad Crossings

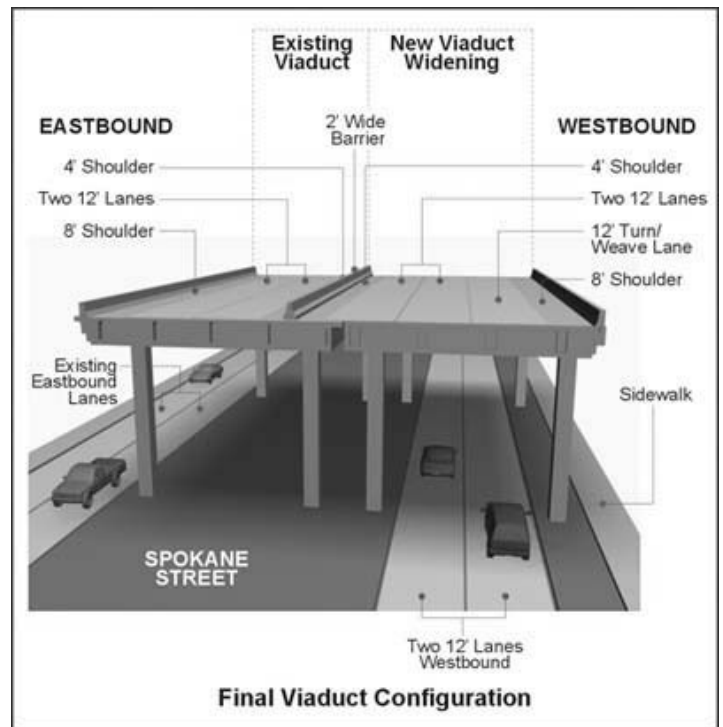
Rail crossings on heavily used truck routes are difficult obstacles for truck movement, especially in the South Downtown area and at Broad Street along the North Waterfront where the BNSF mainline railroad, Amtrak and Sounder commuter rail traverse the area. Grade separations are the most effective way to eliminate these conflicts and implementing a program of grade separations is one of the City's highest freight mobility priorities. Railroad operations also greatly benefit by having a grade separation. These overcrossings or undercrossings are extremely expensive and are justifiable only where there is significant traffic on both the truck route and the rail line.

Grade separations could significantly reduce the typical 8-11 minute delays encountered at current at-grade rail/street crossings of the rail mainline tracks. There are approximately 70 train movements per day across the east/west arterial streets in the Duwamish area. These train volumes and associated traffic delays are expected to increase in the future. The City has developed a list of potential (new, improved, or replacement) grade separation projects based on the *Greater Duwamish Manufacturing and Industrial Center Plan* and the *Access Duwamish Freight Mobility Implementation Plan*. The most recent completed railroad grade separation projects are at Atlantic Street (SR 519, Phase I where the elevated intersection connects to Interstate 90) which was opened in November 2003 in the Duwamish, and the 2001 completion of the Galer Street Flyover in Interbay.

ACTION 10- Pursue Grade-Separation of Key Truck Streets at Heavily Used Railroad Crossings

Continue the development of grade separation projects and seek funding partners for implementation; lobby the State Legislature and United States Congress to obtain state and federal funding. The following projects are currently in various phases of planning and implementation. Project implementation is dependent on obtaining full project funding from the partners and the associated City fund sources.

- ❑ **South Spokane Street Viaduct Widening** – City is seeking State and Federal funding for construction (Phase 4); Phase 3 construction on lower portion of roadway was completed in 2003; the current estimated total project cost of \$101 million; the State FMSIB has recommended \$25 million, subject to the state Legislature's approval; and \$5 million of federal funds is identified in the FAST Corridor program, subject to the federal appropriations process. Project implementation is dependent on obtaining full project funding from the partners and the associated City fund sources.
- ❑ **East Marginal Way South and South Spokane Street** – Port of Seattle is lead for this project. They are refining their design for a grade separation over the railroad tracks leading to their Harbor Island and West Seattle terminals. The Port is seeking construction funding through the State's FAST Corridor program and the FMSIB program. SDOT is coordinating with the Port on an acceptable design solution.
- ❑ **Magnolia Bridge Replacement Project** – A Type, Size, and Location Study is underway in conjunction with the environmental process. A Draft Environmental Statement will be published in 2005. Funding for construction is not currently identified. A new bridge will provide opportunities for better connections to the industrial area adjacent to Terminal 90/91. Based on project cost estimates to be refined, SDOT will seek future project funding.
- ❑ **SR 519, Phase 2 Grade Separation on Royal Brougham Way S** – Funded by the nickel gas tax approved by the Legislature in 2003. Seattle, WSDOT and other partners will refine the project design to address truck and other traffic congestion on South Royal Brougham Way and to provide access to South Downtown, Port facilities and the Central Waterfront.
- ❑ **South Lander Street Area Grade Separation** – City completed a Type, Size, Location Study in June, 2003 with a recommendation for a grade separation on either S. Lander Street or S. Hanford Street; subsequent phases would include environmental review and preliminary engineering. Estimated project cost of \$44.5 million; and the estimated project completion time is currently the end of the decade, subject to funding allocations. The future design and construction phases are currently unfunded.



An improved grade separated roadway on the Spokane Street viaduct will allow trucks more reliable access to Port terminals and manufacturing areas.

Build Street Projects to Benefit Freight

The City's Capital Improvement Program (CIP) has several programmed projects to benefit freight. The CIP is adopted on an annual basis. Project schedules and budgets occasionally change due to design changes and funding availability. These changes are reflected in the subsequent year's CIP. The 2004 CIP and SDOT ongoing safety and operational programs includes the following projects in the Manufacturing and Industrial Centers. Project implementation is dependent on obtaining full project funding from outside grants and the associated City fund sources.

Action 11 - Complete 2004 CIP Projects That Benefit Freight

These projects include SR519 Surface Street Improvements, the West Seattle Swing Bridge, Leary Way, N. 38th Street/Bridge Way, and a new signal at 1st Avenue S. and S. Dawson Street.

Project Details include:

- ❑ **SR 519, Phase I Surface Improvement Project** — Located at East Marginal Way S., Alaskan Way, Atlantic Street and Royal Brougham Way S., this project includes repaving, curb realignments and other traffic lane rearrangements; a new truck-only access road from Terminal 46 to the BNSF Seattle International Gateway (SIG) intermodal yard; revised driveway access and a truck queuing lane at the Terminal 46 truck gate; relo-

cation of the BNSF Railroad lead track to the west side of Alaskan Way; and remote holding space for vehicles using the Washington State Ferries. Construction will start in 2004 and extend through 3rd quarter 2006.

- ❑ **West Seattle Swing Bridge Cylinders and Installation** – SDOT will rehabilitate the existing lift turn cylinder to ensure continued operation of the Bridge. Previously, a cylinder failed and was repaired. SDOT is currently operating with an earlier design and there is no spare cylinder assembly. This will ensure that the bridge will continue to provide a connection to West Seattle from Harbor Island. If another cylinder were to fail the bridge may have to be left open for marine traffic and closed to vehicle traffic. The total budget is \$2.6 million. The first rehabilitated cylinder assembly was installed on March 15th. The project will be completed in 2004.
- ❑ **Leary Way** – SDOT will retime and interconnect three signals on Leary Way from 15th Ave. NW to 36th St. Additionally, street improvements include new curbs, gutters, and sidewalks; concrete panel replacement; and drainage and lighting upgrades. In response to the freight community's request, the City of Seattle is adding one new signal at 11th & Leary. The signal will benefit freight access to Leary Way from the south. Improved signal coordination will benefit all users of Leary Way NW, including freight operators, Ballard and Ship Canal businesses, area residents and general traffic. This project is under construction, with the majority of construction to be completed in 2004.
- ❑ **N 38th Street/Bridge Way Hazard Elimination Project** – SDOT will install improvements to reduce collision hazards on N 38th Street/Bridge Way N from Stone Way N to Linden Ave N, including Aurora Ave N (SR 99) at the Bridge Way off ramp to Bridge Way and N 38th Street. Improvements include: 1) a new traffic signal at Bridge Way and the Aurora off-ramp with a transit queue jump; 2) new channelization at 38th and Bridge Way to eliminate "weave;" 3) a two-way left turn lane from Stone Way to Linden Ave; 4) pedestrian curb bulbs at each end of the underpass; and 5) wheel chair ramps and a cross walk. Benefits include improved safety and traffic delay for trucks destined to the Ballard Industrial Center, citizens and businesses in Fremont and Wallingford, and other users of the Aurora Ave at Bridge Way on- and off- ramps. The two -year project budget is \$187,000. The project will be constructed in the third and fourth quarters of 2004.
- ❑ **New Traffic Signal at 1st and Dawson** – SDOT will be install a traffic signal at 1 Avenue S. & S. Dawson Street in the Duwamish Industrial Center by the end of 2004. Industrial traffic will be able to make turns more readily

at this location. The signal will benefit freight movement and area employees by improving traffic circulation and access to 1st Avenue and by improving safety. The 2004 budget is \$150,000.

Minimizing Conflicts Between Trucks and Other Transportation Modes

There are a number of basic conflicts between medium-to heavy-truck traffic and other motorized and non-motorized vehicular and pedestrian modes of transportation that the City continually needs to evaluate and address. Possible solutions might include identifying alternative routes, developing separate facilities, and clarifying priorities for specific locations in the decision process within which the spectrum of safety and operational needs and criteria are evaluated and balanced.

ACTION 12 – Identify Measures to Minimize Conflicts Between Trucks and Other Transportation Modes.

SDOT's Freight Coordinator will work on an ongoing basis within the department to identify potential measures, such as truck spot improvements, and street design standard revisions and their application to the design process for potential large capital project, to minimize conflicts between trucks and other transportation modes.

ACTION 13 – Prepare a truck considerations checklist to provide truck facility guidance to SDOT operations and design functions.

SDOT Freight Coordinator will develop a truck facility checklist and present to Department operations and design staff for their use in project development and operational decisions in May 2004.

Making the Best Use of What We Already Have

Better management of streets through traffic engineering and the application of technology advances can make more efficient use of our street and signal system resources. These technology solutions are called Intelligent Transportation Systems (ITS). ITS is the application of state-of-the-art traffic management, communications and data technologies to provide a sophisticated set of tools to address the transportation mobility and safety needs faced by the driving public in the City. Seattle has very proactive traffic technology program. Traffic control computers are being upgraded annually. There currently are 19 traffic surveillance cameras providing traffic information to the public via web images. A new City of Seattle Traffic Management Center was put on line in 2003. Traffic data and camera

images are collected; traffic control changes are made to the system; and traffic information is provided to the State and the general public via web images. SDOT is planning on implementing more improvements as funding is available.

ACTION 14 - Begin Implementation of Duwamish Intelligent Transportation Systems (ITS)

The Duwamish ITS Project will add to the City's technology capabilities, with a special emphasis on freight movement. Techniques include traffic surveillance cameras, improved signal timing and electronic message signs—all intended to reduce travel time and improve safety in the Duwamish Industrial Center. Final design was accomplished for the initial construction phase to be performed in 2004. The estimated total project cost is \$7.2 million. funded by local funds, private funding, State Freight Mobility Strategic Investment Board (FMSIB) funding of \$2.5 million., regional federal funds, and \$1.8 million of federal funds from the FAST Corridor Partnership Program which was approved in 2003. The initial construction phase is expected to be substantially complete by the end of 2004. Completion of this phase and continued project implementation is dependent on obtaining project funding from grants and the associated City fund sources.

As part of the Phase I of the Duwamish ITS construction program, SDOT will install the ITS equipment at the following locations in 2004:

Traffic Surveillance Cameras at 9 locations:

- 1st Ave S & S Holgate St
- 3rd Ave s & S Lander St
- 6th Ave S & S Spokane St
- West Seattle Bridge
- 1st Ave S & E Marginal Way
- West Seattle Bridge and Delridge Way
- 4th Avenue and Michigan St
- E Marginal Way and Chelan St
- E Marginal Way & S Hudson St

Traffic Signal Controllers upgrades at 25 locations:

- Airport Way S and S Lucille St
- Airport Way S and Corson Ave S
- Airport Way S and S Othello St
- Airport Way S and S Norfolk St

- E. Marginal Way S and Boeing Field
- 16th Ave S and Boeing Driveway
- E Marginal Way S and 14th Ave S
- S Albro Pl. and 13th Ave S
- S Albro Pl and Stanley Ave S
- S Cloverdale St and 5th Ave S
- S Cloverdale St and 7th Ave S
- S Cloverdale St and 8th Ave S
- 14th Ave S and S Trenton St
- 14th Ave S and S Henderson St
- Airport Way S and Maynard Ave S
- Airport Way S and 6th Ave S
- 16th Ave S & E Marginal Way S
- Ellis Ave S & E Marginal Way S
- Carleton Ave s & E Marginal Way S
- Corson Ave S & E Marginal Way S
- 14th Ave S & S Cloverdale St
- 4th Ave S & I-90 off ramp
- 6th Ave S and S Lander St
- 6th Ave S and S Holgate St
- 6th Ave S and S Forest St

Electronic Message Sign at 5 locations:

- Terminal 30 & E Marginal Way
- 1st Ave S & S Spokane St
- Harbor St SW & SW Spokane St
- 1st Ave S & S Horton St
- 2nd Ave S & S Spokane St

Bridge and Rail signal interconnects at 10 locations:

Bridge

- S. Michigan St and E Marginal Way S and
- 1st Avenue S Bridge

Rail

- vS Royal Brougham St and 4th Ave S
- S Holgate St and 1st Ave S
- S Holgate St and 4th Ave S
- S Lander St and 1st Ave S
- S Lander St and 4th Ave S
- Royal Brougham and Occidental
- S Spokane Street
- Railroad Cabinet Conduit Installation



A centralized Traffic Management Center allows SDOT to better observe conditions and manage traffic.

Efficiently moving containerized cargo shipments is critical to maintaining a healthy, vital economy in the Puget Sound Region. Container freight movement is increasing, especially by rail, for destinations in the Midwest and beyond. Seattle is occasionally referred to as the “Port of Chicago” based on the volume of shipments destined to this national inland hub. Rail is an essential and efficient option for moving freight and goods and provides an alternative to trucks for many industrial and manufacturing businesses. Seattle provides an operating environment for three railroads: both the BNSF and Union Pacific railroad have mainline tracks in the city. A short line railroad, the Ballard Terminal Railroad, provides connections between the BNSF mainline and local businesses in the Ballard Industrial area north of the Ship Canal. The Duwamish Industrial Center contains several intermodal rail yards, including the BNSF Seattle International Gateway (SIG) Yard and the Union Pacific Argo Yard. BNSF operates a major maintenance locomotive facility in Seattle’s Interbay industrial area. Both freight and passenger train volumes are projected to increase through the City.

Beyond freight mobility, rail is also an increasingly attractive option for commuters, evidenced by the early success of Sound Transit’s Sounder line between Tacoma and Seattle. Extension of service to Everett began in late 2003 with increased service planned in the future. All of this activity strains the operational efficiency of mainline rail/street crossings in the Duwamish and in the north end of the central waterfront.

Some railroad crossing locations are adjacent to signalized arterial intersections and present potential conflicts between modes. Improved signal interconnects (communications between control equipment) which coordinate rail and street traffic can reduce safety problems (stopping or redirecting traffic before it reaches the rail crossing). Interactive traffic signs can provide information about waiting times and redirect roadway traffic from closed rail crossings.

Technology improvements will be applied on an ongoing basis to the City’s inventory of traffic signals, signage, and other devices. Such Intelligent Transportation Systems (ITS) efforts can often be implemented on a quicker timeframe than more capital-intensive projects, providing interim freight mobility relief until the larger, longer-term projects come to fruition.

The following actions are designed to support the safe and efficient movement of freight and goods by rail.

ACTION 15 - Initiate Railroad Supportive Elements of Duwamish ITS at the BNSF Railroad Mainline

As part of its ongoing Duwamish ITS Project, SDOT will implement the following ITS elements to reduce rail-related conflicts: special traffic control strategies in response to changing conditions caused by trains moving through at-grade crossings and bridge raisings; and connections and coordination between railroad crossing signals and adjacent traffic signals. See the aforementioned list for the adjacent signals list. SDOT expects to begin upgrading the traffic signal timing at the east/west BNSF mainline street crossings in the Duwamish by December 2004. Project implementation is dependent on obtaining project funding from grants and the associated City fund sources.

Complementary Passenger Rail Enhancements

Sound Transit commuter rail improvements will bring benefits to both passenger rail and to freight transport. As part of these improvements, key portions of mainline railway tracks will be expanded from two tracks to three tracks and grade crossing improvements will be made to facilitate efficient train movements. Current City law limits train speeds to 20 MPH unless a grade-separated crossing exists. In Fall, 2000, the City Council passed Ordinance 120101 setting conditions for train speeds to be raised when specific grade crossing improvements are completed at a five intersections. When completed, these improvements will help relieve some capacity restraints along this important corridor.

ACTION 16 - Complete the BNSF Railroad Third Mainline Track and Signal Improvements in Coordination with Sound Transit

SDOT has an agreement with Sound Transit and BNSF Railroad to install advance signal control (pre-signals with interconnects) at South Royal Brougham Way and South Spokane Street. Sound Transit will construct a third mainline track and improved gated crossings at city streets between 1st Avenue S. and 4th Avenue S.. New train detection, signals, gate arms, track paving and signal interconnect to city signal on 1st Avenue S. and 4th Avenue S. will be installed. Five at-grade street crossings will be improved. Royal Brougham grade crossing is under construction now. Safety will be improved and traffic delay will be reduced at city street crossings. SDOT will coordinate with the BNSF and Sound Transit to facilitate the implementation of the signal changes by December 2004.

Local Rail Access

The City’s existing freight rail network faces challenges from the loss of rail lines, the conversion of rail-accessible

land to non-industrial uses, and passenger rail expansions. It has always been City policy to encourage railroads to maintain rail service; however, the City is limited in what it can do to prevent major railroads from discontinuing service. Building from the example of its 1989 agreements with BNSF to preserve the Ballard industrial corridor and the formation of the Ballard Terminal Railroad, the City should determine the benefit of preserving existing rail line track and unused rail line right-of-way for potential future rail operations reestablishment by railroad entities. This analysis should consider whether acquisition (or other actions) of other threatened corridors is warranted to preserve the opportunity for a short line operator to provide continued rail service.

The City should take a comprehensive approach to developing and evaluating strategies that preserve rail capacity for freight, including consideration of these strategies:

- ☐ Maintain existing rail access to active manufacturing and industrial sites.
- ☐ Support the short line railroad operators in their efforts to maintain rail service to customers in the Ballard Industrial District.
- ☐ Encourage private sector development of additional short-line railroads where feasible.
- ☐ Preserve existing rail corridors in public ownership rather than allowing threatened corridors to be abandoned.
- ☐ Encourage improvement to mainline track freight capacity while expanding regional passenger rail.



Efficiently moving containerized cargo is critical to maintaining a healthy regional economy.

ACTION 17 - Identify Rail Capacity Needs for Freight

The SDOT Freight Coordinator will work with the Freight Mobility Advisory Committee and other stakeholders to identify needs for preserving non-mainline rail capacity and access for freight. These needs will be presented in the next update to the Freight Mobility Strategic Action Plan to be conducted in 2005. SDOT will draft a work scope for rail access capacity by October 2004. The scope will provide a basis for determining potential funding needs for the unfunded study.

PORT OF SEATTLE CONTAINER & CARGO TERMINALS

The Port of Seattle is one of the largest West Coast cargo centers, serving as the entry and exit point for marine cargo to and from the Pacific Rim and Alaska. The Port of Seattle's seaport is made up of 1,414 acres of waterfront land and nearby properties. Nearly 800 acres of the Port's seaport is dedicated to container terminal operations and cargo handling. These facilities include:

- ☐ Terminal 5 in West Seattle, a major intermodal container terminal
- ☐ Terminal 18 on Harbor Island, a major intermodal container terminal
- ☐ Terminal 25 on East Marginal Way (currently in use as intermodal transfer facility and will contain a new major cold storage facility by 2005/2006)
- ☐ Terminal 30 on East Marginal Way (currently in alternate use as a cruise terminal)
- ☐ Terminal 46 on Alaskan Way, a major container terminal
- ☐ Terminal 115 up the Duwamish River on West Marginal Way
- ☐ Terminal 91 in Interbay
- ☐ Terminal 86, a bulk grain terminal on the south end of Interbay.

All but T-115 offer access to deep-draft vessels. Future container volumes are forecasted through the year 2015 using information in the *1999 Marine Cargo Forecast* prepared for the Washington Public Ports Association and the Washington State Department of Transportation. In the Port's *Container Terminal Access Study* this forecast projects the Port of Seattle's container volume to increase from approximately 1.2 million (twenty-foot equivalent units) in 2002 to about 2.2 million in 2015. The Port of Seattle's 2004 Business Plan sets an 8% annual growth goal for container traffic. If this goal is realized, then the 2015 container forecasts could occur by 2011.

Most of the freight is shipped through the port by intermodal containers that are transferred to or from railcars or trucks on the dock. Terminals 5 and 18 include on-dock rail facilities. Some of the containers are shuttle (called "drayed") by truck between BNSF and UPRR intermodal yards. At the intermodal yards, containers are transferred to and from railcars. Truck transport is also an important part of moving cargo to and from Port terminals.

The Port of Seattle has presented the City with their draft "*Container Terminal Access Study*", that identifies infrastructure improvements that are proposed to provide effi-

cient access to major container terminals (Terminals 5, 18, 46, 115, and 25/30) through 2015. The proposals are both capital and operational in nature. Project costs range from small spot improvements to high cost grade separations.

ACTION 18 – Respond to the Ports Terminal Access Study

SDOT will review the suggested recommendations by May 2004, and will coordinate with implementation of the feasible and fundable tasks during the balance of 2004. SDOT will identify those tasks expected to require longer timeframes in conjunction with the review.



Terminal 18 on Harbor Island completed a major \$300 million expansion in 2002 and is Seattle's largest container terminal.

A healthy transportation infrastructure is essential to Seattle's manufacturing and industrial areas. Reliable, direct connections to water, rail, airport and truck facilities are important to an array of existing businesses, and our region's ability to attract new businesses. Due to the nature of these businesses, truck volumes and frequencies are higher in these areas than in other areas of the City, and truck access is of paramount importance.

Currently several major projects and planning efforts are underway that affect access to and within Seattle's designated industrial areas. These projects include the Alaskan Way Viaduct/Seawall Project (AWV/Seawall), the Seattle Monorail Project, the Mercer Corridor Study, the Magnolia Bridge Replacement Project, and Interbay land use studies being conducted by the Port of Seattle. Through the Freight Mobility Advisory Committee, significant concerns regarding AWV/Seawall alternatives impacts to freight mobility have been raised. The Draft Environmental Impact Statement (EIS) for the AWV/Seawall project was issued in March with a comment deadline of June 1, 2004. Formal comments from the freight community are an important step in articulating concerns that should be addressed in the Final EIS. SDOT will monitor impacts of these projects to freight mobility through the environmental review and analysis of these projects, and have project leads present project information and status to the Freight Mobility Advisory Committee.

To protect and improve freight access to manufacturing and industrial areas, the City should develop strategies that address the following themes:

- ☐ Preserve good ground transportation access to manufacturing and industrial sites served by freight carriers and their supportive facilities (rail, airport and marine).
- ☐ Improve directional signage between manufacturing and industrial areas and the regional highway system.
- ☐ Improve and protect the utility of Major Truck Streets to and from manufacturing and industrial areas. These include key streets such as 15th Avenue West, Elliott Avenue and Western Avenue, and the grade separation projects listed earlier in this Plan.
- ☐ Facilitate efficient movement of goods within the manufacturing and industrial areas.
- ☐ Include local business access during construction planning in the major capital project plan process in the industrial areas.
- ☐ Where safe and appropriate, allow loading and maneuvering of trucks on non-arterial access streets in industrial areas.

- ☐ Improve pavement conditions on industrial arterial access streets within manufacturing and industrial areas.

ACTION 19 - Improve Freight Dependent Business Access

The SDOT Freight Coordinator will solicit ideas from the freight community to outline strategies that address issues critical to improving and preserving access to manufacturing and industrial areas by September 2004

Construction Coordination

Construction activity and major events can present another obstacle to accessing businesses and freight destinations. Given the multiple private and public parties doing construction in the Seattle right-of-way, effective ongoing and effective coordination is a necessity. SDOT coordinates with the WSDOT on major maintenance and roadway improvement projects scheduled each year in and adjacent to Seattle to manage congestion. For example, major changes are proposed for the Alaskan Way Viaduct. The City intends to facilitate the movement of goods and services between the two manufacturing industrial centers and throughout the City during and after the Alaskan Way Viaduct and Seawall construction.

Parallel to this activity, SDOT is continuously refining Departmental business practices to coordinate street work and potential disruption via the Street Use permit process and coordination with the Department of Planning and Development on the timing of street, utility, agency and private party construction. This requires cooperation on construction decisions, and subsequently, effective sharing of construction schedule and traffic information with the affected parties.

Timely notification of these activities can assist freight operators in planning for alternative routes. Currently, SDOT participates in several programs to notify the freight community of construction related traffic changes. This includes SODO email alerts using the SODO Association's electronic mailing list. SDOT also provides project input to the Port of Seattle's annual "Truckers Guide" – a handy template for route planning. Finally, information of the status of major projects and planned construction is maintained on the SDOT website.

ACTION 20 - Continue to Improve Communication Tools for Construction-Related Traffic Impacts

SDOT will coordinate with the industrial area freight and business community to identify improved methods to communicate transportation project schedules and construction-related traffic changes via traffic alerts and other techniques. One such tool will be the exploration of truckers' traffic information system to provide information on accidents, construction and special event congestion. SDOT will evaluate options and seek funding for a demonstration project in 2004. SDOT will draft a scope of work for the demonstration by September 2004. Project implementation is dependent on obtaining project funding. Funding for this project is currently unavailable.



SDOT works to improve directional signage between manufacturing and industrial areas and the regional highway system.

RETAIL GOODS DELIVERY

The everyday delivery of goods and services purchased by the general public, businesses, and the government is critical to our economy's success. The City needs to evaluate its role in supporting and managing these activities, aiming both to increase their efficiency and to minimize their negative impacts.

The City should explore strategies that address issues of goods delivery and managing operational impacts on adjacent land uses. To facilitate the efficient delivery of goods to and from businesses, the City should consider the following:

- ☐ Allow after-hour truck access on certain streets.
- ☐ Balance the needs for loading zones with on-street parking and other curb use needs.
- ☐ Ensure workable truck access and adequate loading berths in the design of new buildings in conjunction with the Department of Planning and Development review practices.
- ☐ Retain alleys and ensure they work efficiently for goods delivery.
- ☐ Provide and encourage the provision of suitable truck layover areas during those periods of time when trucks are restricted from entering certain urban centers.
- ☐ Ensure that loading zones are reserved for freight loading and unloading as intended with appropriate levels of enforcement.

Given the historic development of Seattle's street network and land use pattern, limited right-of-way and competing uses, it is difficult and sometimes impossible to accommodate all sizes of delivery and service trucks in some established areas of the City. In such cases, the operating environment will require use of smaller trucks to make those deliveries of goods and services. To better manage the negative impacts of goods delivery may have in adjacent residential areas, the City should consider the following:

- ☐ Support use of smaller trucks within neighborhood commercial districts.
- ☐ Restrict hours of operation for large trucks in neighborhood commercial and residential areas, similar to the current practice with the Seattle Central Business District.

ACTION 21 - SDOT will continue to work with business district representatives and individual businesses to install commercial/passenger load zones where appropriate

As part of the pay station project, existing commercial vehicle zones may be moved to the ends of the blocks and consolidated in order to provide better freight access to business in 2004. Changes will be considered in conjunction with the range of curb space use needs in the City's neighborhoods.

ACTION 22 - Improve permit processing for truck permits and meter hooding

SDOT is currently improving the application process for truck permits and meter hooding by taking applications by fax and assigning them as pending in the SDOT system, so that when the customer comes in to pick up their permit it is typically ready, so that in most cases, all that needs to be done is to complete the money transaction. The customer's time saving is expected to be between 20 minutes to an hour per transaction. SDOT will implement the new practice by April 2004. In conjunction with improving permit processing, SDOT will evaluate the permit fee structure to determine the need and opportunity for revisions by December 2004.

ACTION 23 - SDOT will continue to coordinate with the freight community and appropriate City staff to outline strategies that help facilitate more efficient local goods delivery.

SDOT will solicit input from the Freight Committee on measures to improve local goods delivery by August 2004.



Local delivery of goods and services are a key component of Seattle's economic success.

APPENDIX ONE

CITY OF SEATTLE 2003 FREIGHT MOBILITY ACTIONS

The following accomplishments were completed in 2003, after the first *Freight Mobility Action Plan* was published.

Truck Access

- **SR519 Phase 1 Completed.** The SR 519 Atlantic Street Overpass was opened to traffic on May 17, 2003. This allows traffic from southbound and northbound Fourth Avenue South to go westbound on the new South Atlantic Street overpass. In October 2003 the new on-ramp to eastbound I-90 and both directions of I-5 was completed and opened to traffic. Improvements to the road increase safety by separating the road and rail crossing, improve vehicle and freight access between I-90 and waterfront locations such as the Port and Colman Ferry Dock.



The recently completed Atlantic Street overpass, built between Occidental Street and I-90, takes truck, car and pedestrian traffic over railroad tracks near Safeco Field.

- **Issued construction alerts** for route planning on an ongoing basis using SDOT maintained listserver and the associated information distribution service of the SODO Association.
 - **SDOT assisted with construction coordination with West Marginal Way businesses** and BNSF to remove an inactive rail track across West Marginal Way with minimal traffic disruption in the fall of 2003.
 - **Completed Trucker's Survey for the Alaskan Way Viaduct and Seawall Replacement Project.** This survey provides need information on how current freight operators use the existing facility. The survey results are being input to the Viaduct Project transportation documentation. A Draft Environmental Statement for the entire project was released in March 2004.
 - Continued the ongoing program for the **Commercial Vehicle Enforcement Section**. The Freight Mobility Advisory Committee has complimented the quality service provided by the SDOT Commercial Vehicle Enforcement Program in 2003.
 - SDOT has posted the *Freight Mobility Strategic Action Plan*, the Port of Seattle *Trucker's Guide* and the Major Truck Streets Map on the **SDOT website**.
 - **South Spokane Street Directional Signing Improved** to assist truckers accessing Port of Seattle Terminals 5 and 18. In late 2003, SDOT installed larger-sized directional signage on South Spokane Street on Harbor Island (between SR 99 and the low-level West Seattle Swing Bridge). This new signage is more visible from a distance and provides motorists and truck drivers more time to make decisions about lane choice. These signs will provide great benefit to the 4,000 truck trips per weekday generated by the Port of Seattle's Terminal 5 and Terminal 18. These signs were commissioned by the Port and installed by the City.
- **Type, Size and Location Study for S. Lander Street Grade Separation.** Published in February 2003.
 - **Provided Input on Freight Needs for Large Capital Projects.** SDOT staff provided and facilitated freight-related input on planning for capital projects including the Monorail project, Leary Way Project, SR 519 Intermodal Access Project and the Alaskan Way Viaduct.
 - An **inventory of known obstacles to truckers** was conducted.

Before and After Photos of Spokane Street Signage



Old Signage



New, Improved Signage



Old Signs



New, Improved Signage

Rail Access

- Galer Street at-grade crossing closed in March 2003.** The Galer Street Flyover, completed in 2001, carries traffic from Port of Seattle Terminal 90/91 and adjacent businesses over the mainline railroad tracks. In 2003, mitigation measures were put in place to enable this last at-grade crossing north of Broad Street to be closed to traffic.
- Initial work on the 3rd BNSF mainline track from Boeing Access Road to Royal Brougham Way S was initiated.** This is a part of a larger project that will ultimately result in construction of a 3rd mainline track from Seattle to Tukwila.
- Infrastructure Funding**—SDOT participated in a national effort to explore federal legislative changes to provide infrastructure funding for freight rail improvements. Seattle was a participant in a nationally based Rail Infrastructure Coalition.
- Mainline Track Pavement**—the BNSF repaired the pavement at the mainline track crossing at Broad Street in coordination with SDOT.

Freight Access to Manufacturing & Industrial Areas

- **Improved pavement conditions** on the following streets in the respective industrial areas in 2003:

Program: Arterial Major Maintenance			
Street	From	To	Paving (lane-miles)
S Hudson	S Ohio	1 Ave S	0.48
4 Ave S	Airport Way	Intersection	0.04

Program: Non-arterial Paving

Street	From	To	Paving (lane-miles)
Poplar Place S	S Dearborn	S Charles St	0.31

Program: Paving Partnerships

Street	From	To	Paving (lane-miles)
3 Ave S	S Holgate	Dead End to S	0.17
SW Lander	16 Ave SW	DE	0.32

Total: 1.32

Port of Seattle Container and Cargo Terminals

- **Physical and operational responses to the Port of Seattle on their access needs for their various terminals.** SDOT installed directional and guide signing on the approaches to Terminal 30—the temporary cruise ship terminal, and to the container terminals at T 5 in West Seattle and T 18 on Harbor Island.

Continue to secure funding for freight-supportive projects

- SDOT staff continued efforts to secure external funding for freight mobility projects. These included: S. Spokane Street Viaduct Widening, S. Lander Street Grade Separation, Duwamish Intelligent Transportation Systems (ITS), and Truck Spot Improvements. SDOT was successful with the following funding processes:
 - ◆ Supported Port of Seattle with project proposal and presentations for the E. Marginal Argo Yard Access Crossover Project to the State's Freight Mobility Strategic Investment Board (FMSIB). The Board approved the project application and recommended the project be considered for future funding of \$250,000 from the Legislature.
 - ◆ Obtained FAST Partners commitment of \$1.8 million from FY 03 Federal Earmark Funds for the Duwamish ITS Project.

- ◆ Obtained support for \$2.5 million from the federal FY 04 appropriations process for the Intelligent Transportation Systems (ITS) Seattle Center City Access Project.
- ◆ Obtained support for \$873,500 from the FY 03 Federal Earmark Funds for the Fremont Bridge and Montlake Bridge ITS Projects.

Emphasized On-Going Communication & Coordination with Freight Community

- Regular monthly meetings of the Seattle Freight Mobility Advisory Committee were held and included many project briefings and discussion topics of interest to the freight community. Some of the project briefings included: the Alaskan Way Viaduct and Seawall Project alternatives, S Lander Street Grade Separation, Magnolia Bridge, Mercer Corridor Transportation Study, and the W. Marginal Bike Path.
- Participated in monthly meetings of the Ballard Interbay Northend Manufacturing Industrial Center (BINMIC) Action Committee
- Participated in monthly meetings of the regional FAST Partnership Project (Freight Action Strategy Team)
- Prepared materials for state legislative tour (hosted by the State Freight Board) of Seattle freight projects and conducted Seattle portion of South King County tour in summer 2003.
- Participated in bi-monthly meetings of the Regional Freight Mobility Roundtable
- Participated in quarterly meetings of the Port Truck Operators Committee.
- Participated in other business community meetings such as the North Seattle Industrial Association and the South Park Business Council.

APPENDIX TWO

FREIGHT MOBILITY STRATEGIC ACTION PLAN PRIORITIES – SURVEY RESULTS

As part of outreach and input to the plan update, members of the Freight Mobility Advisory Committee, BINMIC and other stakeholders were asked to prioritize actions in the draft plan. During the months of March and April, respondents were asked to prioritize their top ten work items (out of 22) proposed in the draft plan (1 as highest and 10 lowest priority). Ten surveys were returned; respondents included: Trident, Boeing, the Port of Seattle, United Motor Freight, BNSF, Eagle Systems, Kane Environmental, Ballard Terminal Railroad, Nelson Trucking and Ballard Oil. They were also asked to place an “X” in the priority box for items that they felt were not important to include in the plan update. Shaded actions are those receiving the lowest rankings - those where no more than one respondent ranked is as the 10th priority or lower. Priorities from respondents were varied and there were few trends of similar top priorities for those on in the draft plan

Action #	Proposed Actions	R#1	R#2	R#3	R#4	R#5	R#6	R#7	R#8	R#9	R#10
1	Updated Inventory of Known Obstacles Identified by the Trucking Community	M	6	6		10		7	6		X
2	Inventory of infrastructure height restrictions facing trucks operating in the City	L	7	7		8	9	5			
3	Maintain a list of truck weight restrictions on Seattle Bridges and other structures	L		8		9		6			
4	Pursue Funding for Priority Truck Access Projects <i>Example: Spokane St, Lander St, Duwamish ITS, Truck Spot Improvements.</i>	7	1	4		11	3	1			9
5	Incorporate Freight Operation Design Needs into the Update of the Right-of-Way Improvement Manual. <i>Example: larger design vehicles where appropriate.</i>	M	8	5	6	7		10			
6	Include an Oversized Vehicle Design Standard in the Update of the Right-of-Way Improvement Manual. <i>Example: 20' x 20' envelope.</i>	M	3			6				10	2
7	Review 2005 Paving Priorities with the Freight Community	10a				12				9	4
8	Pavement Management Program will continue to include Freight Needs as Criteria in Prioritizing Street Rehabilitation Work.	10b	10	9		5			7	8	
9	Solicit freight community involvement in the Paving Partnership Program.	10c				14				7	
10	Pursue Grade-Separation of Key Truck Streets at Heavily Used Railroad Crossings. <i>Example: Spokane St, Lander St, E Marginal and Spokane</i>	5	2		2	15	4	2		6	6
11	Build Street Projects to Benefit Freight. <i>Example: Leary Way, SR 519 Surface Project</i>	2	4		3	13	10	3	4	3	1
12	Identify Measures to Minimize Conflicts Between Trucks and Other Transportation Modes. <i>Examples: review curb bulbs on arterials, lane narrowing changes</i>	8	9	10	4	1	5		3	2	3
13	Prepare a truck considerations checklist to provide truck facility guidance to SDOT operations and design functions.	M		3		2			8	5	
14	Begin Implementation of Duwamish Intelligent Transportation Systems (ITS)	3	5			17	2				

Action #	Proposed Actions	R#1	R#2	R#3	R#4	R#5	R#6	R#7	R#8	R#9	R#10
15	Initiate Railroad Supportive Elements of Duwamish ITS at the BNSF Railroad Mainline	3.5			7	3					
16	Complete the BNSF Railroad Third Mainline Track and Signal Improvements in Coordination with Sound Transit Respondent 4: Issue permits so that this work can be completed!	6			1	18					
17	Identify Rail Capacity Needs for Freight. <i>Example: intermodal yard lead tracks, site specific railcar access.</i>	9			5	4				4	
18	Respond to the Ports Terminal Access Study	1			8	16		8	9		
19	Improve Freight Dependent Business Access	L		2	9	12	6	4	5		7
20	Continue to Improve Communication Tools for Construction-Related Traffic Impacts. <i>Example: truck traffic radio.</i>	M	X			22	8	9	10		8
21	SDOT will continue to work with business district representatives and individual businesses to install commercial/passenger load zones where appropriate	L	X			19					5
22	Improve permit processing for truck permits and meter hooding <i>Example: advance permit submittal practice</i>	L				20					
23	SDOT will continue to coordinate with the freight community and appropriate City staff to outline strategies that help facilitate more efficient local goods delivery. <i>Example: solicit ideas to share with SDOT and other departments like DPD & SPU.</i>	L			10	21	7				
	Other Actions? Respondent 1: "Coordinate w/ WSDOT on SR planning internal & external to City in interest of freight (SR 509, 99, 519, Mercer)", Respondent 3: "Develop and maintain major truck access routes to major industrial and manufacturing districts (i.e. Ballard/Interbay)", Respondent 6: "Trucking Needs for Viaduct, street use selection for trucks for emergency routes if Viaduct becomes closed to trucks", Respondent 8: "a) Burke/Gilman Trail and Industrial Route Conflict; b) Alaskan Way Viaduct Capacity Time Line & NW Portal", Respondent 9: "Alaskan Way Viaduct! (Repair Existing or 6 Lane Aerial), Respondent 10: Alaskan Way Viaduct Replacement Alternative 1".	4		1			1		1-a 2-b	1	10

SDOT 4/23/04

Appendix 3

ADOPTED CITY FREIGHT POLICIES AND STRATEGIES FROM THE COMPREHENSIVE PLAN AND THE TRANSPORTATION STRATEGIC PLAN

From the Comprehensive Plan Transportation Element, “Moving Goods and Services” Section (Adopted in 1994, and Updated on an Annual Basis:

Goals

- TG21** Preserve and improve commercial transportation mobility and access.
- TG22** Maintain Seattle as the hub for regional goods movement and as a gateway to national and international suppliers and markets.

Discussion: Commercial transportation mobility and access are critical to Seattle’s and the region’s economic development. Rail service, water transport, truck movement, and air transport are all important for the success of businesses and industries in Seattle and the region. These policies, and those in the economic development element, support existing businesses and industries, and promote Seattle as a place for economic expansion.

Policies

- T53** Designate major truck streets as shown in Transportation Figure 6. Monitor these streets and make operating, design, access, and/or service changes, as well as capital investments, to accommodate trucks and to preserve and improve commercial transportation mobility and access on these major truck streets. Continue to designate all other arterials as truck streets, as in the Seattle Comprehensive Transportation Program.
- T54** Support the establishment of a public/private freight access consortium to address land-side access needs of Seattle’s marine port facilities and manufacturing/industrial centers. Include at least the City, other local jurisdictions, the Port of Seattle, the Washington State Department of Transportation, the Puget Sound Regional Council, private business and residential interests, the railroads, representatives of the trucking industry, and members of the general public.
- T55** Support efficient movement of commercial goods by rail where appropriate. Promote continued operation of existing rail lines.

T56 Promote a multi-modal commercial transportation strategy, including rail, trucks, and air and water transport, and advocate for improved freight and goods movement. Work toward improved multi-modal connections among rail yards, the waterfront, the Duwamish, Lake Union, Portage Bay, the Ship Canal, airports, and regional roadways.

T57 Consider the needs for delivery and collection of goods at local businesses by truck when making street operating decisions, and when developing and implementing projects and programs for highways, streets, and bridges. Consider at least: access to freeways; street width, turning radii, and overhead clearance; railroad crossings; and traffic congestion and conflicts with cars, bicycles, and/or pedestrians.

From the Comprehensive Plan, Neighborhood Element:

BINMIC Goals and Policies

- BI-G4** Strive to maintain and enhance intermodal (barge, ship, rail and truck) connections.
- BI-P14** Where practical and appropriate separate mainline rail traffic from surface street traffic by designing and constructing bridges to improve safety for motorized and non-motorized transportation.
- BI-P17** Support separation of mainline rail traffic from surface street traffic by designing and constructing bridges, where feasible, to improve safety for motorized and non-motorized transportation.

Greater Duwamish Goals and Policies

- GD-P14** Maintain shoreside freight access to and from the waterway.
- GD-P29** Strive to maintain waterborne and roadway access to seaport facilities.
- GD-P30** Strive to maintain access for air cargo to the King County International Airport.
- GD-P34** Recognize the importance of intermodal connections for the movement of freight between the state highway system, rail yards, barge terminals, Port terminals, airports and warehouse/distribution centers.

GD-P37 Consider setting speed limits for trains high enough to limit the length of time trains block streets at grade crossings.

GD-P38 Encourage railroad operations in which switching and signals enhance the speed and reliability for passenger and freight trains.

From the Seattle Transportation Strategic Plan (October 1998), Section V:

V. MOVING FREIGHT AND GOODS

The continued ability to move freight and goods by rail, truck, water, and air is absolutely critical to Seattle's and the state's economic development. The everyday delivery of goods and services purchased by the general public, businesses, and the government is also critical to the success of every sector of the economy, from multinational businesses headquartered in high-rise office buildings to mom-and-pop corner stores. Washington is the most trade-dependent state in the country. One of five jobs (about 600,000) are related to international trade. This trade will continue to grow, fueled by the reliance of American consumers on overseas goods.

The Comprehensive Plan includes two basic goals for freight movement:

- ☐ Maintain Seattle as the hub for regional goods movement and as a gateway to national and international suppliers and markets.
- ☐ Preserve and improve commercial transportation mobility and access.

Freight mobility issues are particularly important for Seattle's two designated Manufacturing and Industrial Centers—the Duwamish area and the Ballard/Interbay/Northland area. These two industrial centers are expected to accommodate at least 10 percent of Seattle's new employment over the next 20 years—nearly 15,000 new jobs. Direct connections to water, rail, and truck facilities are important to a vast array of existing and potential businesses in these areas.

This Transportation Strategic Plan chapter identifies specific strategies and actions needed to support freight movement. Many are focused on improving freight access to the Manufacturing and Industrial Centers.

Truck Access

All of Seattle's businesses and residents rely on freight shipped via trucks in one way or another. While light trucks play an important role, the freight industry is generally moving towards the use of larger trucks to haul materials to and from construction sites, support manufacturing and

industrial businesses, connect ships and railroads, and make regional, interstate, and international trips. Moving these larger trucks on city streets can be a challenge.

Strategy FM1: Improve Major Truck Streets to Support Safe, Efficient Truck Movements

While all arterials within the city are considered truck routes, a designated network of Major Truck Streets provides primary routes throughout the city. The following strategies outline ways the City can improve conditions on Major Truck Streets.

Strategy FM1.1: Fix Site-specific Obstacles to Truck Movements on Major Truck Streets

The City's Major Truck Streets are made up of existing arterials; very few of these routes were designed or constructed to accommodate trucks of the size that are commonly in use today. As arterials are reconstructed, changes are made to accommodate larger vehicles, but many problem areas will not be reconstructed for many years. A "spot improvement program" to correct conditions in major freight corridors would enhance trucks' ability to operate on the existing streets until they are reconstructed.

Improvements that support truck movement include increasing curb radii on critical corners, removing on-street parking in key locations, relocating utility poles that are too close to the curb, providing truck queue lanes/holding lanes at major terminal access points, and making other similar changes.

ACTION 1: Develop a prioritized list of truck problem areas and solutions along Major Truck Streets. Coordinate with the neighborhood planning process, as appropriate.

ACTION 2: Work with King County, the Port of Seattle, and other partners to implement solutions.

Trade-offs: Some improvements that support truck mobility can reduce pedestrian safety (e.g., increasing curb radii or moving utility poles away from the curb). Increased truck movements can interfere with other traffic.

Strategy FM1.2: Review Design Standards to Ensure that the City's Arterial Streets Can Accommodate Trucks

Trucking operators are concerned that the City's existing street design standards are not adequate for trucks currently in use. The City should review the current standards and modify them as appropriate to ensure that when arterials—especially Major Truck Streets—are redesigned and rebuilt, they are better able to accommodate truck movements. Design standard updates require a comprehensive process that involves review by staff and advisory boards responsible for a broad range of concerns (i.e., trucks, public transit, pedestrians, and bicycles).

ACTION: Review and update the City's Standard Plans and Specifications and Street Design Manual, as appropriate.

Trade-offs: In neighborhood business districts and other busy pedestrian areas, improvements that support truck mobility can decrease the attractiveness of streets for people. Where arterials run through residential neighborhoods, increased truck traffic can negatively affect neighborhoods.

Strategy FM1.3: Improve Pavement Conditions on Truck Access Routes

Truck access routes tend to deteriorate more quickly than other streets due to the heavier loads and higher volumes. Major Truck Street status should be one of the criteria for determining paving priorities.

At present, there may be streets that are heavily used by trucks, but which are not classified as arterials.

ACTION 1: Make Major Truck Street status one of the criteria for determining paving priorities.

ACTION 2: Add non-arterials critical to industrial access to the City's paving program.

Strategy FM2: Minimize Conflicts Between Trucks and Other Transportation Modes

Conflicts between trucks and other transportation modes (trains, cars, pedestrians, and bicyclists) can create safety problems and cause expensive delays. Minimizing such conflicts would make truck trips safer and more efficient and support economic development.

Strategy FM2.1: Grade Separate Key Truck Routes at Heavily Used Railroad Crossings

Rail crossings on major truck routes are a difficult obstacle to truck movement, especially in the South Downtown area. Grade separation is the most effective way to eliminate these conflicts and is one of the City's highest freight mobility priorities. But it is extremely expensive and is justifiable only where there is significant traffic on both the truck route and the rail line.

As the number and length of trains on the main rail line through Seattle increase, arterials that cross the tracks in South Downtown have become prime candidates for grade separation. The City has begun working with the State and the Port of Seattle to develop projects.

ACTION 1: Develop a priority list of grade separation projects and seek funding partners for implementation; lobby the State Legislature and United States Congress to obtain state or federal funding.

ACTION 2: Implement projects.

Strategy FM2.2: Explore Strategies for Minimizing Other Conflicts Between Trucks and Other Transportation Modes

There are a number of other basic conflicts and potential solutions that the City needs to evaluate. There are often conflicts between heavy truck traffic and other transportation modes, especially in dense urban centers and residential areas. Solutions include identifying alternative routes and developing separate facilities, as well as clarifying priorities for specific locations. The City does have staff and advisory boards that review capital project designs in an effort to identify and minimize potential conflicts.

ACTION: Identify and implement techniques for minimizing conflicts between trucks and other transportation modes.

Railroad Access

Rail is an essential and efficient option for moving freight and goods and provides an alternative to trucks for many industrial and manufacturing businesses, especially for moving bulk materials. The use of containers on rail and trucks is growing and pushing the capacity of the region's railroads. Plans are also progressing to increase passenger rail service on the same rail lines. All of this activity strains the crossings between city streets and rail lines. The following policies are designed to support the efficient movement of freight and goods by rail.

Strategy FM3: Minimize Conflicts Between Rail Facilities and Other Transportation Modes

Increasing rail operations combined with longer freight trains increase conflicts where the rails cross roadways. Reducing these conflicts can make rail operations more efficient as well as improve safety and traffic flows.

Grade separation for key arterials is covered under Strategy FM2.1.

Strategy FM3.1: Relocate Facilities to Avoid Major Conflicts Between Modes

Grade separation is extremely expensive and justifiable only where there are high traffic volumes on both the road and the rail line. Often less costly solutions will work where either or both facilities are modified to reduce conflicts and provide benefits similar to grade separation. Such changes include creating detour routes, closing crossings, and modifying or relocating tracks.

ACTION: Develop a prioritized list of "relocation" projects and seek funding partners for implementation.

Strategy FM3.2: Coordinate Railroad and Traffic Controls to Minimize Conflicts

Some railroad crossing locations are adjacent to signalized arterial intersections and represent potential conflicts between modes. Signal interconnects coordinating rail and street traffic can reduce safety problems (stopping traffic before it reaches the rail crossing). Interactive traffic signs can provide information about waiting times and detour roadway traffic from closed rail crossings.

ACTION: Identify locations where signal interconnects or interactive signs would be helpful and feasible. Work with the railroads to implement such signs and signals.

Strategy FM4: Preserve Existing Rail Corridors and Freight Rail Capacity

The City's existing freight rail capacity is threatened by the loss of rail lines, the conversion of rail-accessible land to non-industrial uses, and passenger rail expansions.

The City needs to develop and evaluate strategies that preserve rail capacity for freight, including:

- ☐ Maintain existing rail access to manufacturing and industrial sites.
- ☐ Encourage the development of short-line railroads when economically feasible.
- ☐ Preserve existing rail corridors rather than allowing them to be abandoned.
- ☐ Encourage improvement of mainline tracks to maintain freight capacity while expanding regional passenger rail.

ACTION: Develop and implement strategies to preserve existing freight rail capacity.

Strategy FM5: Evaluate Potential Changes to Regulations of Rail Operations Across City Streets

Balancing rail, truck, and passenger movement may require changes in the City's Traffic Code regulating rail activities across city streets (e.g., speed limits and switching across arterials).

ACTION: Review and evaluate the existing Traffic Code regulation of rail activities across city streets. Recommend changes as appropriate.

Freight Access to Manufacturing and Industrial Areas

The transportation infrastructure is essential to Seattle's manufacturing and industrial areas. Direct connections to water, rail, and truck facilities are important to a vast array of existing and potential businesses in these areas.

Strategy FM6: Protect and Improve Freight Access to Manufacturing and Industrial Areas

In addition to the strategies outlined above, the City needs to develop strategies that address the following issues:

- ☐ Preserve existing manufacturing and industrial sites with good freight access facilities (rail, water, and truck).
- ☐ Improve truck routes to and from manufacturing and industrial areas.
- ☐ Facilitate efficient goods movement within the manufacturing and industrial areas.
- ☐ Where appropriate, allow loading and maneuvering of trucks on non-arterial access streets.
- ☐ Pave industrial access and non-arterial streets within manufacturing and industrial areas.
- ☐ Evaluate the performance of buffer zones between manufacturing and industrial areas and residential zones.

ACTION: Evaluate and implement strategies that support freight access to manufacturing and industrial areas.

Retail and Goods Delivery

The everyday delivery of goods and services purchased by the general public, businesses, and the government is critical to our economy's success. The City needs to evaluate its role in supporting and managing these activities, aiming both to increase their efficiency and to minimize their impacts.

Strategy FM7: Develop and Implement Goods Delivery Strategies

The City should explore strategies that address the following areas:

- 1) Facilitate the efficient delivery of goods to and from businesses:
 - ◆ Allow after-hour truck access on certain streets.
 - ◆ Balance the needs for loading zones with on-street parking needs.
 - ◆ Ensure workable truck access and adequate loading berths in the design of new buildings.
 - ◆ Retain alleys and ensure they work efficiently and as designed for goods delivery.
 - ◆ Provide truck layover areas for when they are restricted from certain urban centers.

- ◆ Ensuring that load zones are reserved for freight loading and unloading, including possible restrictions on use by passenger vehicles with commercial plates.

2) Manage the impacts of goods delivery on residential areas and urban villages:

- ◆ Regulate the size of vehicles allowed on residential streets.
- ◆ Limit allowable time for engine idling in residential areas.
- ◆ Support use of smaller trucks within urban villages.
- ◆ Restrict hours of operation for large trucks in these areas.

ACTION: Develop and implement strategies that facilitate goods delivery and minimize its impacts on residential areas and urban villages.

ACTION: Designate a City Freight Mobility Coordinator to organize the City's work on freight mobility strategies and provide a designated point of contact for freight issues.

Note: Section VIII. City Transportation Priorities of the Transportation Strategic Plan includes criteria for prioritizing freight projects.

Other Strategies

Strategy FM8: Review Marine and Air Access Policies

The City's role to support and manage marine and air access, including private facilities as well as the Port of Seattle and Boeing Field, should be evaluated. Bridge opening policies, for example, affect both marine and roadway goods movement. King County is preparing a new Master Plan for Boeing Field that has important implications for freight movement in the city and for surrounding residential areas.

ACTION: Review and evaluate the City's role in marine and air access. Develop and implement strategies as appropriate.

Strategy FM9: Develop Funding Partnerships to Promote Projects that Benefit Freight

The benefits of freight mobility improvements often cross-jurisdictional boundaries, and may directly enhance port or railroad operations. Because funding is scarce, financial partnerships with the other beneficiaries will be needed.

ACTION: Work with other partners on the development of projects such as the FAST corridor project, and the SR-519 Intermodal Access Project.

Strategy FM10: Coordinate the City's Work on Freight Mobility Issues

The City is involved in a broad range of freight issues, ranging from grade separation issues around the Port of Seattle to regulating truck movements in residential neighborhoods. The City's role in these issues generates a wide range of requests for assistance, direction, and input.